

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

- Claim 1. (currently amended) A method for determining a presence of bacteria in a sample containing platelets comprising the steps of:
- lysing a substantial portion of the platelets in the sample;
 - staining the bacteria using a membrane-permeable nucleic acid stain;
 - filtering the sample using a membrane filter to retain a material containing stained bacteria on the filter; and
 - analyzing the material using epifluorescence microscopy ~~to determine the presence of bacteria in the sample.~~
- Claim 2. (currently amended) A ~~The~~ method as claimed in claim 1, wherein the step of lysing the platelets is carried out by contacting the platelets with a suitable amount of a suitable lytic agent for a sufficient period of time to lyse 90% of the platelets.
- Claim 3. (currently amended) A ~~The~~ method as claimed in claim 1, wherein the step of lysing the platelets is carried out by contacting the platelets with a suitable amount of a suitable lytic agent for a sufficient period of time to lyse 99% of the platelets while ~~destroying~~ lysing less than 20% of the bacteria in the sample.
- Claim 4. (currently amended) A ~~The~~ method as claimed in claim 3, wherein the suitable amount of the lytic agent ranges from about 0.5% to about 20% of the platelets by volume, and the lytic agent is a detergent.

- Claim 5. (currently amended) A The method as claimed in claim 1, wherein the step of analyzing the material further comprises the steps of:
- acquiring digital images of the material;
 - analyzing the digital images to determine a count of the bacteria; and
 - comparing the count of the bacteria with a threshold count ~~to ascertain the presence of bacteria.~~
- Claim 6. (currently amended) A The method as claimed in claim 1, wherein the membrane-permeable nucleic acid stain comprises a ~~SYTO dye~~ low molecular weight cyanine dye.
- Claim 7. (currently amended) A The method as claimed in claim 1, wherein the membrane-permeable nucleic acid stain is ~~SYTO-13~~ a low molecular weight cyanine dye and the lytic agent is ~~Triton X-100~~ a nonionic surfactant based on ethoxylate polymers.
- Claim 8. (currently amended) A The method as claimed in claim 1, wherein the step of staining the bacteria comprises the step of contacting the sample with the membrane-permeable nucleic acid stain for about 2 to about 15 minutes.
- Claim 9. (currently amended) A The method as claimed in claim 1, wherein the membrane filter has a pore size between about 0.2 μm and about a diameter of a bacteria cell.
- Claim 10. (currently amended) A The method as claimed in claim 1, wherein a material containing substantially all of the stained bacteria is retained on the membrane filter after the filtering step, and wherein the method further comprises the step of drying the material retained on the membrane filter after the sample has been filtered through the membrane filter.

Claim 11. (currently amended) A method for determining a concentration of bacteria in a sample containing platelets, comprising the steps of:

lysing a substantial portion of the platelets without destroying a substantial amount of bacterial cells in the sample;

staining the bacteria using a membrane-permeable nucleic acid stain;

filtering the sample using a membrane filter to retain a material containing substantially all of the stained bacteria on the filter; and

analyzing the material using epifluorescence microscopy and digital image acquisition and analysis ~~to determine the concentration of the bacteria in the sample.~~

Claim 12. (currently amended) A The method as claimed in claim 11, wherein the step of analyzing the material further comprises the steps of:

acquiring digital images of the material;

analyzing the digital images to determine a count of the bacteria; and

comparing the count of the bacteria with a calibration curve ~~to determine the concentration of the bacteria.~~

Claim 13. (currently amended) A The method as claimed in claim 11, wherein a material containing substantially all of the stained bacteria is retained on the membrane filter after the filtering step, and wherein the method further comprises the step of drying the material retained on the membrane filter after the sample is filtered through the membrane filter.

Claim 14. (currently amended) A method for ascertaining a presence of bacteria in a platelet suspension having platelets comprising the steps of:

lysing a substantial portion of the platelets without destroying a substantial amount of the bacteria in the platelet suspension;

staining the bacteria using a membrane-permeable nucleic acid stain;

filtering the platelet suspension using a membrane filter with a suitable pore size, to retain a material containing substantially all of the stained bacteria on the filter; and

analyzing the material using epifluorescence microscopy and digital image acquisition and analysis ~~to determine the presence of the bacteria in the platelet suspension.~~

Claim 15. (currently amended) A The method as claimed in claim 14, wherein the step of lysing the platelets is carried out by contacting the platelet suspension with a sufficient amount of a lytic agent

Claim 16. (currently amended) A The method as claimed in claim 15, wherein the amount of the lytic agent ranges from about 0.5% to about 20% of the platelet suspension.

Claim 17. (currently amended) A The method as claimed in claim 15, wherein the lytic agent is a detergent.

Claim 18. (currently amended) A The method as claimed in claim 15, wherein the membrane-permeable nucleic acid stain is ~~SYTO-13~~ a low molecular weight cyanine dye and the lytic agent is ~~Triton X-100~~ a nonionic surfactant based on ethoxylate polymers.

Claim 19. (currently amended) A The method as claimed in claim 14, wherein the step of analyzing the material further comprises the steps of:

acquiring digital images of the material using an automated epifluorescence microscope;

analyzing the digital images using an image analysis program to determine a count of the bacteria; and

comparing the count of the bacteria with a threshold count ~~to determine the presence of the bacteria in the platelet suspension.~~

Claim 20. (currently amended) A The method as claimed in claim 14 further comprising the step of drying the material retained on the membrane filter after the platelet suspension has been filtered through the membrane filter.

Claim 21. (currently amended) A method for determining a presence of bacteria in a sample containing red blood cells comprising the steps of:
lysing a substantial portion of the red blood cells in the sample;
staining the bacteria using a membrane permeable nucleic acid stain;
filtering the sample using a membrane filter to retain a material containing stained bacteria on the filter; and
analyzing the material using epifluorescence microscopy ~~to determine the presence of bacteria in the sample.~~

Claim 22. (currently amended) A The method as claimed in claim 21, wherein the step of lysing the red blood cells is carried out by contacting the red blood cells with a suitable amount of a suitable lytic agent for a sufficient period of time to lyse at least 90% of the red blood cells.

Claim 23. (currently amended) A The method as claimed in claim 21, wherein the step of lysing the red blood cells is carried out by contacting the red blood cells with a suitable amount of a suitable lytic agent for a sufficient period of time to lyse at least 99% of the red blood cells while ~~destroying~~ lysing less than 20% of the bacteria in the sample.

Claim 24. (currently amended) A The method as claimed in claim 21, wherein the step of analyzing the material further comprises the steps of:
acquiring digital images of the material;
analyzing the digital images to determine a count of the bacteria; and
comparing the count of the bacteria with a threshold count ~~to ascertain the presence of bacteria.~~

Claim 25. (currently amended) A The method as claimed in claim 21, wherein the membrane-permeable nucleic acid stain is ~~SYTO-13~~ a low molecular weight cyanine dye and the lytic agent is ~~Friton X-100~~ a nonionic surfactant based on ethoxylate polymers.